

10/512804

" LUMINOUS DIFFUSER WITH DIFFERENTIATED LIGHT EMITTING
PARTS FOR LIGHTING EQUIPMENT"

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Filed of the invention

This invention concerns lighting equipment in general and refers in particular to a light diffuser for such equipment.

5 Prior Art

Lighting equipment, in particular if large, usually includes several light sources inside a housing and a light diffuser opposite those sources. Often, however, lighting equipment is more luminous in those parts in line with the internal light sources and less in the other parts further from the light sources.

10 Objects of the Invention

One of the objects of this invention is to overcome this drawback so as to even out the emission of light in lighting equipment using a front diffuser.

Another object of the invention is to provide a light diffuser which enables a uniform light emission for all its wideness, even in the presence of
15 local and distant light sources inside its body.

A further object of the invention is to provide a light diffuser configured to mask, in some of its parts, the wiring components, which would otherwise be visible from the outside of the body and be aesthetically unacceptable.

These objects and implicit advantages deriving from them are achieved
20 by lighting equipment comprising several light sources, and wherein a light diffuser is formed by a front plate with holes positioned uniformly on all its surface and of an internal sheet associated with the internal surface of the

front plate and having holes with different diameters in different parts of its length, positioned in line with the openings of the front plate itself.

Brief Description of the Drawings

Further details of the invention will however become more evident from
5 the description that follows made with reference to the attached drawings, which are indicative and not limiting, in which:

Fig.1 shows an example of lighting equipment incorporating the light diffuser according to the invention;

Figs. 2 and 3 show, respectively, a view of only the front plate and a
10 view of the internal sheet of the light diffuser; and

Fig.4 shows a longitudinal section of the lighting equipment.

Detailed Description of the Invention

As shown, the lighting equipment includes a body or housing 11, which holds a number of light sources 12 suitably supported and wired and which is
15 closed at the front by a light diffuser 13.

The light sources may be made up of any type of light and with sizes compatible with those of the lighting equipment.

The light diffuser 13 is composed of a front plate, that is external 14 and an internal sheet 13 directly associated with the front plate.

20 The front plate 14 is crossed by a multitude of holes or openings 16 all of the same width along all its length. The holes or openings 16 are uniformly distributed and are, for example, but not necessarily, honey-combed – Figs 1 and 2.

The internal sheet 15 may be made up, as shown in the example in Fig.
25 3, of an element on its own, in the shape of a second sheet or a film, which

can be applied to the internal surface of the front plate 14. But preferably the internal sheet can be obtained together with the front plate 14 in order to form in this case an integral part with said front plate.

5 Whatever the case, the internal sheet 15 has holes 17 of different diameters in various parts, as can be seen in Fig. 3. . Each hole 17 of the internal sheet 15, whatever its size, is positioned in line with a hole or opening 16 in the front plate 14.

More precisely, the internal sheet has holes 17 of a set diameter in the parts in line with the light sources, holes 17' of a larger diameter in the parts 10 distant from the light sources and between them, and smaller holes 17'' along the edges of the diffuser.

The differences in holes 17 and 17' thus enable, even in the presence of equally sized holes or opening 16 in the front plate 14, to even out the light emission through the diffuser 13 even from the parts distant from the light 15 sources, whereas the smaller holes 17'' help to hide the internal supports and wiring of the light sources so that they are no longer visible through the front plate.